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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,701	02/13/2002	Wen Tong	7000-129	7059
27820	7590	07/28/2004	EXAMINER	
WITHROW & TERRANOVA, P.L.L.C.			BAKER, STEPHEN M	
P.O. BOX 1287			ART UNIT	
CARY, NC 27512			PAPER NUMBER	

2133

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/074,701	Applicant(s) TONG ET AL.	
	Examiner Stephen M. Baker	Art Unit 2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 1-11 and 21-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1: in line 9, "packet that is properly received in response to receiving the NAK" apparently should be "packet that is not properly received, in response to receiving the NAK".

In claim 21: in line 12, "packet that is properly received in response" apparently should be "packet that is not properly received, in response".

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5, 10, 12-15, 18, 20-25, 30, 32-35, 38 and 40 rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,646,518 to Weinstein (Weinstein).

Weinstein discloses a communication system for transmitting digital data between computers, with retransmission for error control. For each new data packet

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sent from a data transmitting terminal (Fig. 1A) and received by a data receiving terminal (Fig. 1B) in Weinstein's system, a coded acknowledgement feedback message is generated by the data receiving terminal and returned to the data transmitting terminal. Weinstein's new data packets are encoded with parity of an error correcting code. For each received new data packet that is "not properly received" (*i.e.* uncorrectable), Weinstein's coded acknowledgement feedback message is generated with an inverting step (col. 4, line 37) and serves as a "negative-acknowledgement (NAK) from the receiver". For each received new data packet that is "properly received" (*i.e.* correctable or errorless), Weinstein's coded acknowledgement feedback message is generated without an inverting step (col. 4, line 63) and serves as an "acknowledgement (ACK) from the receiver" (col. 8, lines 39-45). When data is to be retransmitted using Weinstein's system, a number of new data packets, spaced I packets apart, are modified by puncturing out the parity bits and replacing them with bits of the retransmitted data, thereby forming retransmission packets (col. 3, lines 9-25). If the coding rate is $1/3$, then it is necessary to puncture the parity from three new data packets in order to retransmit the data of a negatively-acknowledged packet. Weinstein thereby provides steps of "dividing the packet for retransmission into a plurality of subpackets" and "puncturing packets in the sequence of packets with the subpackets", so that Weinstein's data receiving terminal "can recover the subpackets from punctured packets to recreate the packet (which required) ... retransmission".

Regarding claims 3 and 23, as Weinstein's retransmission packets are spaced apart by I packets and still include the same amount of newly-transmitted original data, it

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is apparent that "the sequence of packets is continuously transmitted without regard to receiving the ACK".

Regarding claims 5, 15, 25 and 35, Weinstein's punctured parity bits are "non-systematic bits" that are "select" to the extent that the l-packet spacing rule selects packets to be parity-punctured.

Regarding claims 10, 18, 30 and 38, successive subpackets of retransmitted data in Weinstein's system can be considered as providing "incremental redundancy".

Further regarding claims 12 and 32, though not shown by Weinstein, the transmitted data in Weinstein's system is presumably encoded text, voice, image or program data, and thus would require some form of decoding in order to be further processed as such.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weinstein.

Weinstein does not mention sending data from one transmitting station to more than one receiving station. Official Notice is given that the usefulness of providing a computer network for allowing a computer to communicate with various different

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computers at various different times was well known in the art of computer-to-computer communication at the time the invention was made. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to apply Weinstein's data transmission terminal to communication, at other times, with other data receiving terminals having the same construction as Weinstein's disclosed data receiving terminal. Such an application would have been obvious because the usefulness of providing a computer network for allowing a computer to communicate with various different computers at various different times was already well known.

Allowable Subject Matter

6. Claims 6, 7, 9, 11, 26, 27, 29 and 31 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

7. Claims 16, 17, 19, 36, 37 and 39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Baker whose telephone number is (703)

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305-9681. The examiner can normally be reached on Monday-Friday (11:00 AM - 7:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (703) 305-9595. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Stephen M. Baker
Primary Examiner
Art Unit 2133

smb